

**Amendment and Response under 37 C.F.R. 1.116**

Applicant: Thane M. Larson et al.

Serial No.: 09/924,024

Filed: August 7, 2001

Docket No.: 10012574-1

Title: SYSTEM AND METHOD FOR POWER MANAGEMENT IN A SERVER SYSTEM

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**REMARKS**

The following remarks are made in response to the second Final Office Action mailed March 29, 2005. In that Office Action, it is noted with appreciation that the Examiner approved Applicant's request to withdraw the finality of the Office Action mailed January 14, 2005. The Examiner rejected claims 1, 7-9, and 14 under 35 U.S.C. §103(a) as being unpatentable over Ben-Meir et al., U.S. Patent No. 5,652,893 ("Ben-Meir") in view of Pignolet, U.S. Patent No. 6,023,148 ("Pignolet"), and Doustou II et al., U.S. Patent No. 6,392,872 ("Doustou"), Ozawa et al., U.S. Patent No. 6,023,725 ("Ozawa"), and Fitzgerald, U.S. Patent No. 6,564,056 ("Fitzgerald"). Claims 2-6, 10-13, and 15-19 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ben-Meir in view of Pignolet, Doustou, Ozawa, and Fitzgerald as applied to claims 1, 7-9, and 14 above, and further in view of De Nicolo, U.S. Patent No. 6,134,666 ("De Nicolo").

With this Response, claims 1-9 and 15-19 have been amended. Claims 1-19 remain pending in the application and are presented for reconsideration and allowance.

**35 U.S.C. §103 Rejections**

In the Final Office Action, the Examiner stated that:

1. Applicant's request for reconsideration of the finality of the rejection of the last Office Action is persuasive and, therefore, the finality of that action is withdrawn.

It is to be noted, that the arguments provided against the combination of the hub teachings of Ben-Meir and the server teachings of Pignolet and Doustou are persuasive. However, such does not render the claims patentable, in light of the newly applied Ozawa et al. reference. This reference is drawn to a "server system" (i.e., the same as indicated in Applicant's preamble of claims 1, 9, and 15). The claims are drawn to a "server system" which is not to a "server" with a "single housing" and which does not include any sort of "hub" functionality. Clearly, Ozawa et al. teach a "server system" in the form of a "video server system" in Figure 1. Per Figure 2, the video transmission center 15 comprises the video server 12, and an ATM hub 14. A clear distinction is made in Ozawa et al. between the "server system", which includes the hub, and a "server unit" which does not include the hub. This reasoning, applied to Applicant's claiming of a "server system" results in the proper inclusion of the hub, as a "server system" is definitely broader than a "server unit" as a "system" allows for the inclusion of a hub, whereas a

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“server unit” does not include the hub. As the claims do not use any sort of closed language (i.e., consisting essentially of) or define any sort of housings or structure or functionality to the exclusion of any hub functionality, the claimed “server system” is properly interpreted to include the hub functionality of the combined references. Clearly, in such a combination, the cards/modules are not limited to being exclusively limited to just a “server unit”, as the “server system” is simply broader. Finally, the Fitzgerald reference shows an (sic) intelligent hub 100 with web server functionality per column 3, in order to allow for the hub to serve as a web server. Although there is a teaching against a hard drive, this only pertains to reliability related to the presence of no moving parts. However, this does not preclude the presence of any and all hard drives, as hard drives that provide the desired reliability are still applicable, noting especially that independent claims 1 and 9 only specify the broader “mass storage”. (Final Office Action mailed 3/29/05 at para. no. 1, pages 2-3).

With this Amendment, Applicant has amended independent claims 1, 9, and 15. Independent claims 1 and 15 (and dependent claims 2-8 and 16-19) have been amended to change “server system” to “server unit”. Independent claim 9 has been amended to change “server system” to “server with a single housing”. Applicant respectfully submits that these amendments address the issues raised by the Examiner in the above block quote, and negate the basis for the Examiner’s new combination of prior art references. Applicant respectfully requests entry of the claim amendments identified above, and allowance of claims 1-19 is respectfully requested. More detailed remarks are provided below.

The Examiner rejected claims 1, 7-9, and 14 under 35 U.S.C. §103(a) as being unpatentable over Ben-Meir et al., U.S. Patent No. 5,652,893 (“Ben-Meir”) in view of Pignolet, U.S. Patent No. 6,023,148 (“Pignolet”), Doustou II et al., U.S. Patent No. 6,392,872 (“Doustou”), Ozawa et al., U.S. Patent No. 6,023,725 (“Ozawa”), and Fitzgerald, U.S. Patent No. 6,564,056 (“Fitzgerald”). Independent claim 1, as amended, is directed to a “server unit” and recites “a plurality of subsystems each including an associated memory for storing power usage information, the plurality of subsystems including at least one host processor card and at least one mass storage device”. (emphasis added). Thus, claim 1 recites that the at least one host processor card and the at least one mass storage device each include an associated memory for storing power usage information. The Examiner has acknowledged that “B-M [Ben-Meir] in view of Pignolet lack specific mention of the subassemblies containing at least one host processor card, at least one hard disk card, and at least one fan

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card." (Office Action mailed 6/30/04 at para. no. 6, page 6). The Examiner stated that "Doustou, in the same art of computer and server structure, shows it is old and well known to use processor and disc modules, as well as fan packs in servers (i.e. column 1, lines 42-52). Note for example the disc module 139, processor modules 165 and fan modules 47." (Final Office Action mailed 1/14/05 at para. no. 4, page 9). However, there is no teaching or suggestion in Doustou that disc module 139, processor modules 165, or fan modules 47 include an associated memory for storing power usage information. Thus, none of the cited prior art references teaches or suggests "a plurality of subsystems each including an associated memory for storing power usage information, the plurality of subsystems including at least one host processor card and at least one mass storage device", as recited in independent claim 1.

There is also no suggestion to combine the cited references in a manner that would produce the claimed invention. Ben-Meir discloses a local area network switching hub or concentrator. (See, e.g., Ben-Meir at Title, Abstract, Field of the Invention, and Background of the Invention). Ben-Meir clearly distinguishes between a server and a switching hub (see, e.g., Ben-Meir at col. 1, lines 10-17), and includes no teaching or suggestion that any of the techniques disclosed therein for the switching hub could or should be applied to a server, such as the server disclosed in Pignolet or the server disclosed in Doustou. Pignolet discloses a data server (see, e.g., Pignolet at Abstract), and includes no teaching or suggestion that any of the techniques disclosed therein for a data server could or should be applied to a switching hub, such as the switching hub disclosed in Ben-Meir. Doustou discloses a network server (see, e.g., Doustou at col. 1, lines 4-6), and includes no teaching or suggestion that any of the techniques disclosed therein for a network server could or should be applied to a switching hub, such as the switching hub disclosed in Ben-Meir.

The proposed modification to Ben-Meir based on Pignolet and Doustou would also change the principle of operation of the switching hub disclosed in Ben-Meir. The MPEP states that "[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. MPEP §2143.01, citing *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). The MPEP also states that, in the *Ratti* case, "[t]he court reversed the rejection holding the 'suggested combination of

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references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate.” MPEP §2143.01, citing *In re Ranti*, 270 F.2d at 813, 123 USPQ at 352. The transformation of the switching hub disclosed in Ben-Meir into a server as proposed by the Examiner would require a substantial reconstruction of the switching hub, and would change the purpose and principle of operation of the switching hub. The proposed modified device would no longer operate to interconnect servers, but rather would be a server itself.

Even if the switching hub disclosed in Ben-Meir were somehow transformed into a server based on the teachings of Pignolet (despite no suggestion in either reference to modify a switching hub in this manner), and then this modified switching hub was modified again based on the teachings of Doustou to add the disc modules, processor modules, and fan modules disclosed in Doustou (despite no suggestion in either reference to modify a switching hub in this manner), the combination of references still does not meet the limitations of claim 1. There is no teaching or suggestion in the cited prior art that the disc module 139 and the processor module 165 of Doustou include an associated memory for storing power usage information. Ben-Meir, Pignolet, Doustou, Ozawa, and Fitzgerald, either alone or in combination, do not teach or suggest “a plurality of subsystems each including an associated memory for storing power usage information, the plurality of subsystems including at least one host processor card and at least one mass storage device”, as recited in independent claim 1.

In view of the above, Ben-Meir, Pignolet, Doustou, Ozawa, and Fitzgerald, either alone or in combination do not teach or suggest each and every limitation of independent claim 1. The Applicant respectfully requests removal of the rejection of claim 1 under 35 U.S.C. § 103(a), and requests allowance of this claim. Since dependent claims 7 and 8 further limit patentably distinct claim 1, claims 7 and 8 are believed to be allowable over the cited references, and allowance of claims 7 and 8 is respectfully requested.

Independent claim 9, as amended, is directed to a method of monitoring power usage in a “server with a single housing”, and recites “providing each of the plurality of subsystems with an associated memory” and “storing power usage information in the memories associated with the plurality of subsystems, the power usage information stored in each

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memory representing the power usage of the subsystem associated with the memory". Claim 9 further recites "the server system including a plurality of subsystems and a power supply for powering the plurality of subsystems, the plurality of subsystems including at least one host processor card and at least one mass storage device". Thus, claim 9 recites that the at least one host processor card and the at least one mass storage device are each provided with an associated memory that stores power usage information. As described above with respect to independent claim 1, the cited references, either alone or in combination, do not teach or suggest "a plurality of subsystems each including an associated memory for storing power usage information, the plurality of subsystems including at least one host processor card and at least one mass storage device", as recited in independent claim 1. For the reasons set forth above with respect to claim 1, the cited references also do not teach or suggest the above quoted recitations of independent claim 9. There is also no suggestion to combine the cited references, as described above with respect to claim 1.

In view of the above, Ben-Meir, Pignolet, and Doustou, Ozawa, and Fitzgerald, either alone or in combination, do not teach or suggest each and every limitation of independent claim 9. Applicant respectfully requests removal of the rejection of claim 9 under 35 U.S.C. § 103(a), and requests allowance of this claim. Since dependent claim 14 further limits patentably distinct claim 9, claim 14 is believed to be allowable over the cited references, and allowance of claim 14 is respectfully requested.

The Examiner rejected claims 2-6, 10-13, and 15-19 under 35 U.S.C. §103(a) as being unpatentable over Ben-Meir in view of Pignolet, Doustou, Ozawa, and Fitzgerald, as applied to claims 1, 7-9, and 14, and further in view of De Nicolo, U.S. Patent No. 6,134,666 ("De Nicolo"). Claims 2-6 are dependent on independent claim 1. Claims 10-13 are dependent on independent claim 9. As described above with respect to independent claims 1 and 9, Ben-Meir, Pignolet, Doustou, Ozawa, and Fitzgerald, either alone or in combination, do not teach or suggest the above-quoted recitations of claims 1 and 9. De Nicolo also does not teach or suggest these recitations.

As described above with respect to claim 1, there is no suggestion to combine Ben-Meir, Pignolet, Doustou, Ozawa, and Fitzgerald. De Nicolo includes no teaching or suggestion regarding a server, and there is no teaching or suggestion in De Nicolo that any of

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the techniques therein could or should be applied to a server. There is no suggestion to combine De Nicolo with Ben-Meir, Pignolet, Doustou, Ozawa, and Fitzgerald.

In view of the above, since dependent claims 2-6 and 10-13 further limit patentably distinct claim 1 and claim 9, respectively, claims 2-6 and 10-13 are believed to be allowable over the cited references, and allowance of claims 2-6 and 10-13 is respectfully requested.

Independent claim 15, as amended, is directed to a "server unit", and recites "a plurality of removable cards, each card including an associated memory for storing power usage information, the plurality of cards including at least one host processor card and at least one hard disk card". As described above with respect to independent claim 1, Ben-Meir, Pignolet, Doustou, Ozawa, and Fitzgerald, either alone or in combination, do not teach or suggest "a plurality of subsystems each including an associated memory for storing power usage information, the plurality of subsystems including at least one host processor card and at least one mass storage device", as recited in independent claim 1. For the reasons set forth above with respect to claim 1, Ben-Meir, Pignolet, Doustou, Ozawa, and Fitzgerald, also do not teach or suggest the above quoted recitations of independent claim 15. De Nicolo also does not teach or suggest these recitations.

In view of the above, Ben-Meir, Pignolet, Doustou, Ozawa, Fitzgerald, and De Nicolo, either alone or in combination, do not teach or suggest each and every limitation of independent claim 15. Applicant respectfully requests removal of the rejection of claim 15 under 35 U.S.C. § 103(a), and requests allowance of this claim. Since dependent claims 16-19 further limit patentably distinct claim 15, claims 16-19 are believed to be allowable over the cited references, and allowance of claims 16-19 is respectfully requested.

**CONCLUSION**

In view of the above, Applicant respectfully submits that pending claims 1-19 are in form for allowance and are not taught or suggested by the cited references. Therefore, reconsideration and withdrawal of the rejections and allowance of claims 1-19 is respectfully requested.

No fees are required under 37 C.F.R. 1.16(b)(c). However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 08-2025.

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The Examiner is invited to contact the Applicant's representative at the below-listed telephone numbers to facilitate prosecution of this application.

Any inquiry regarding this Amendment and Response should be directed to either David A. Plettner at Telephone No. (408) 447-3013, Facsimile No. (408) 447-0854 or Jeff A. Holmen at Telephone No. (612) 573-0178, Facsimile No. (612) 573-2005. In addition, all correspondence should continue to be directed to the following address:

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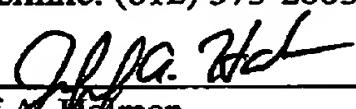
Respectfully submitted,

Thane M. Larson et al.

By their attorneys,

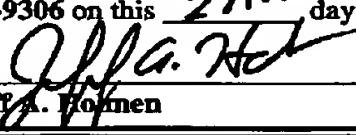
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**CERTIFICATE UNDER 37 C.F.R. 1.8:**

The undersigned hereby certifies that this paper or papers, as described herein, are being transmitted via telefacsimile to Examiner Fleming, Group Art Unit 2182, at Fax No. (703) 872-9306 on this 27 day of May, 2005.

By   
Name: Jeff A. Holmen